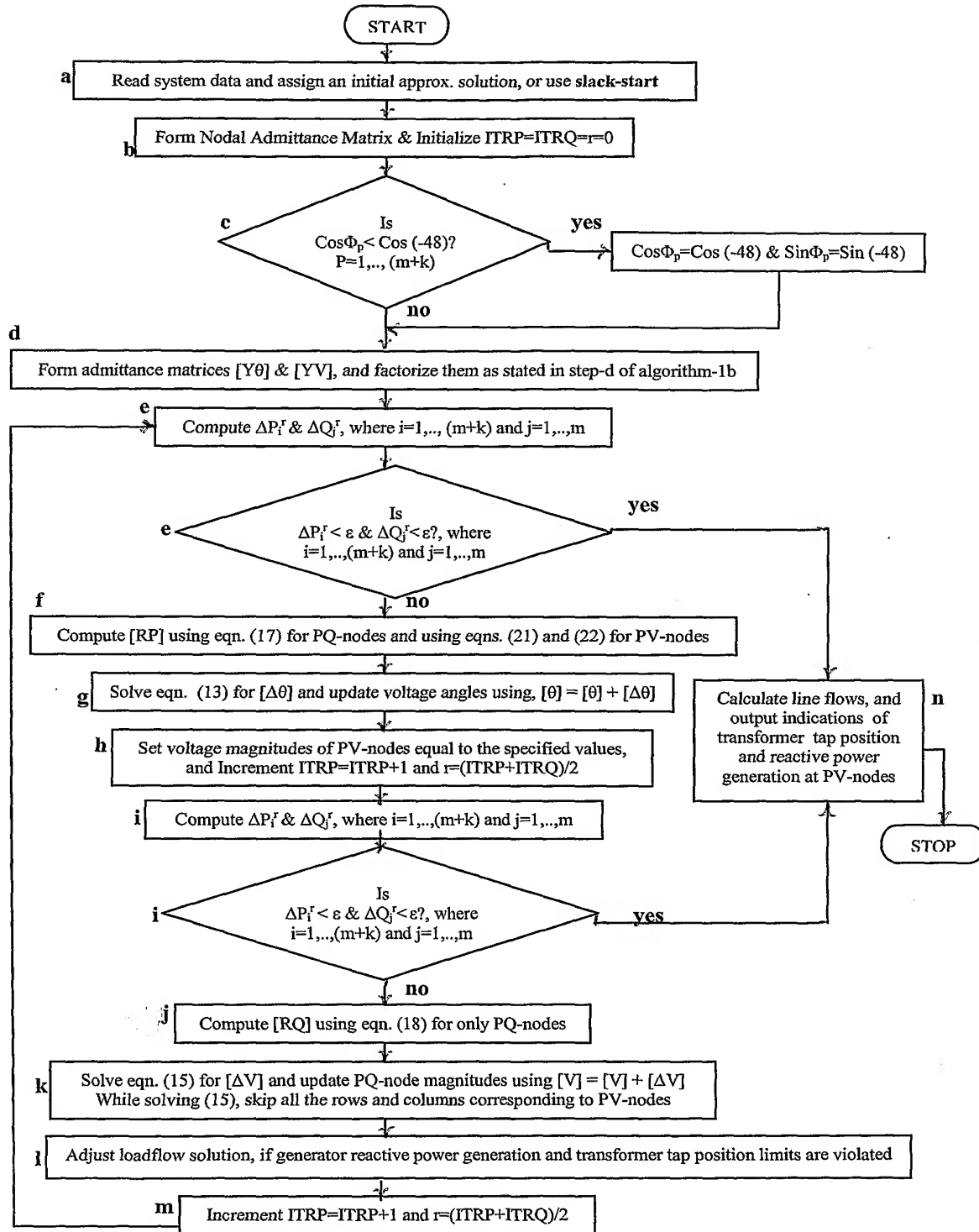
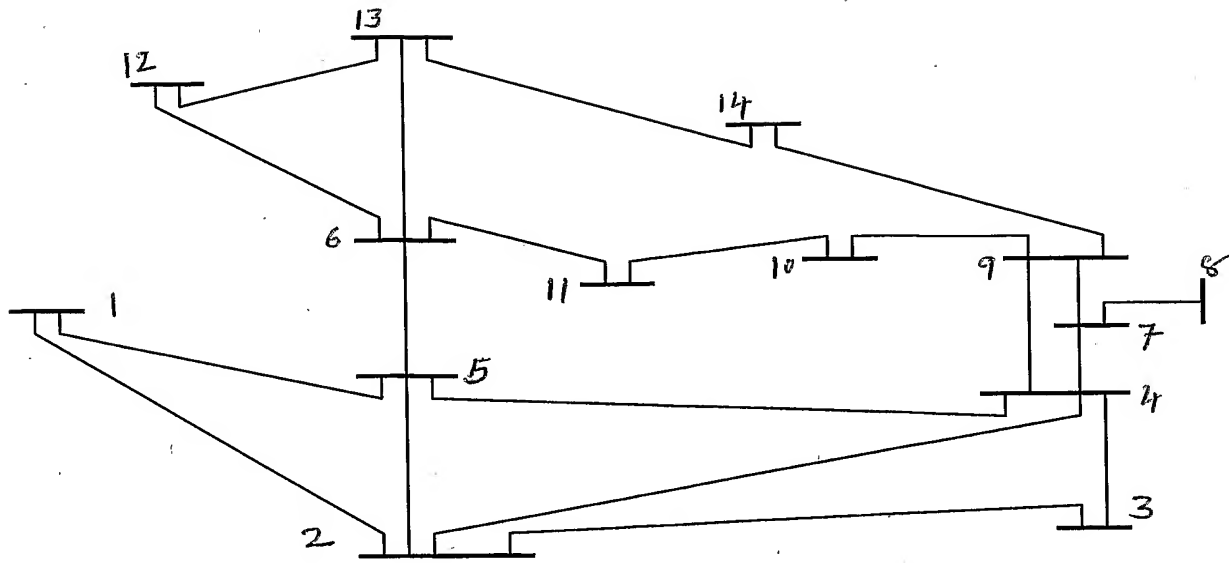


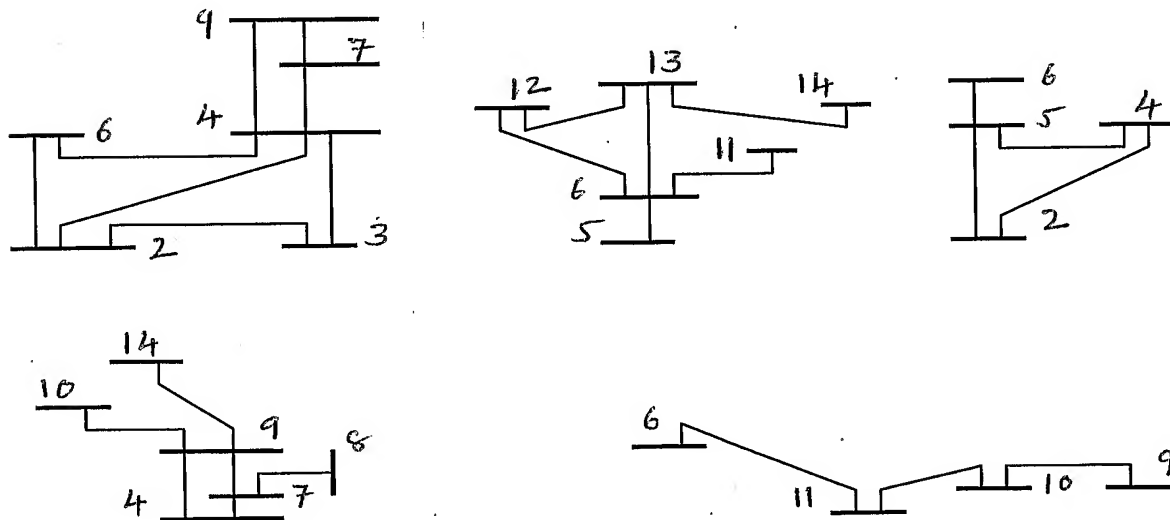
**Fig. 1a: Prior Art: flow-chart of Gauss-Seidel Loadflow Algorithm-1a**



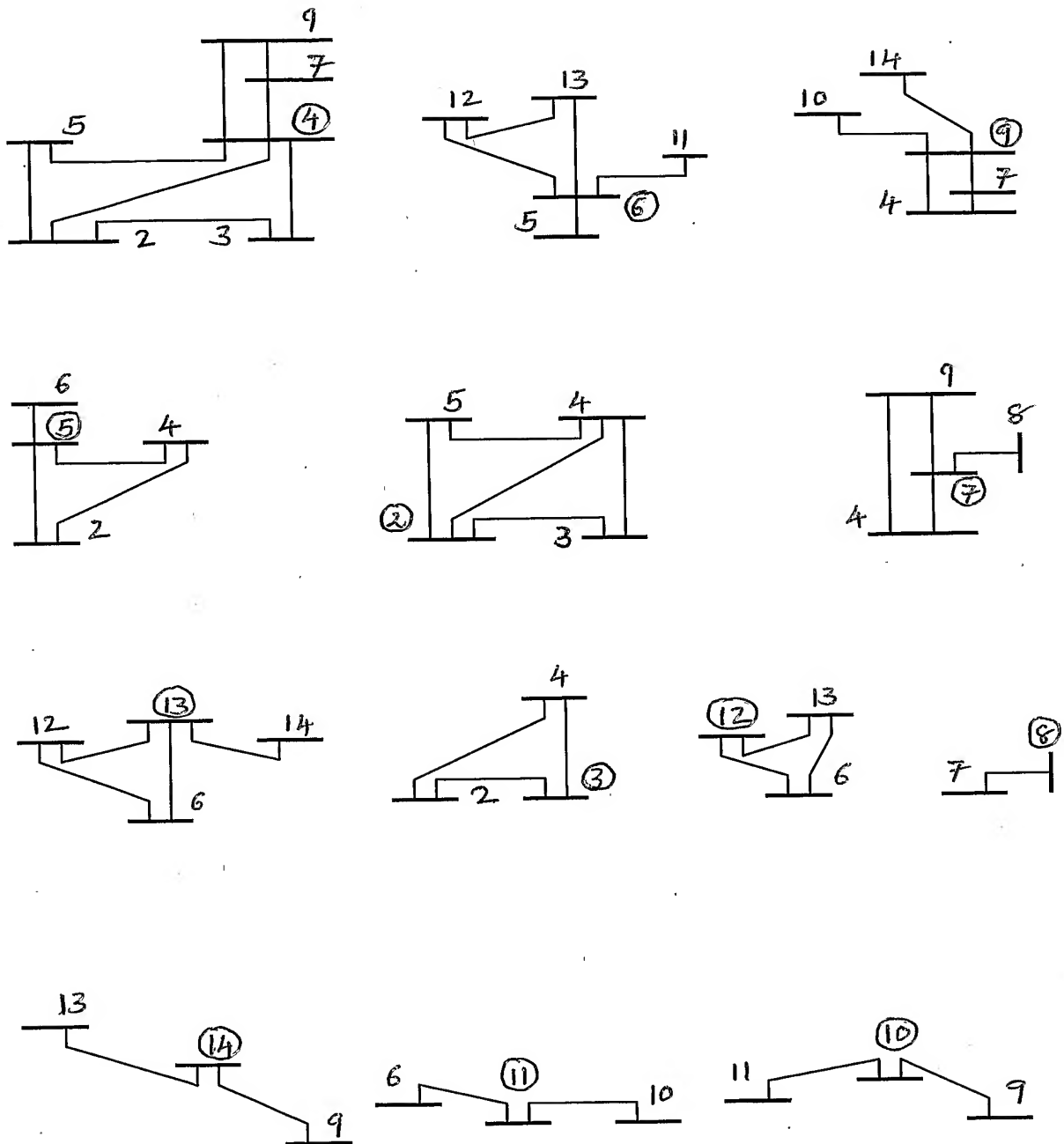
**Fig.1b: Prior art: Flow-chart of SSDL solution algorithm-1b**



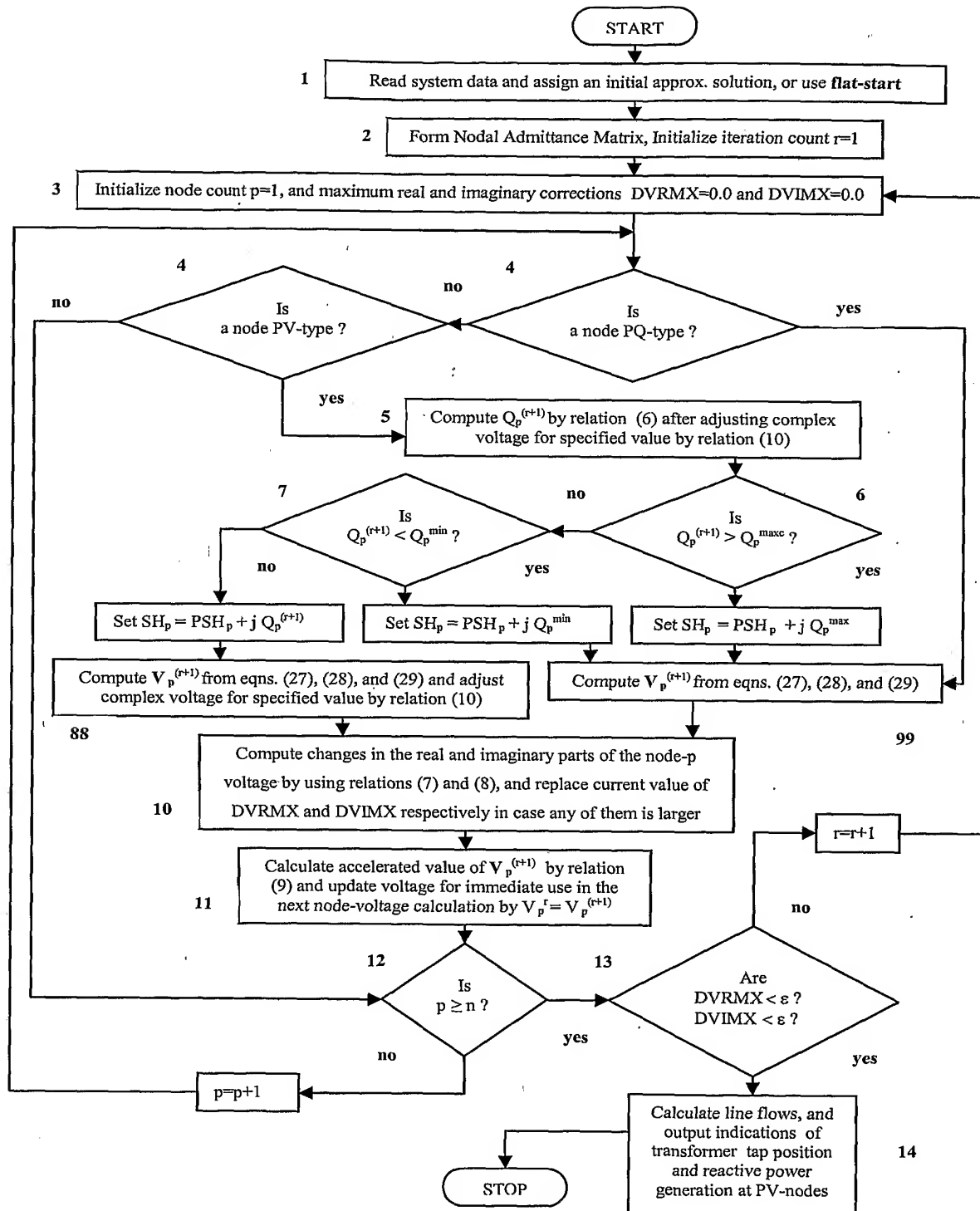
**Fig. 2a:** One-line diagram of IEEE 14-node network



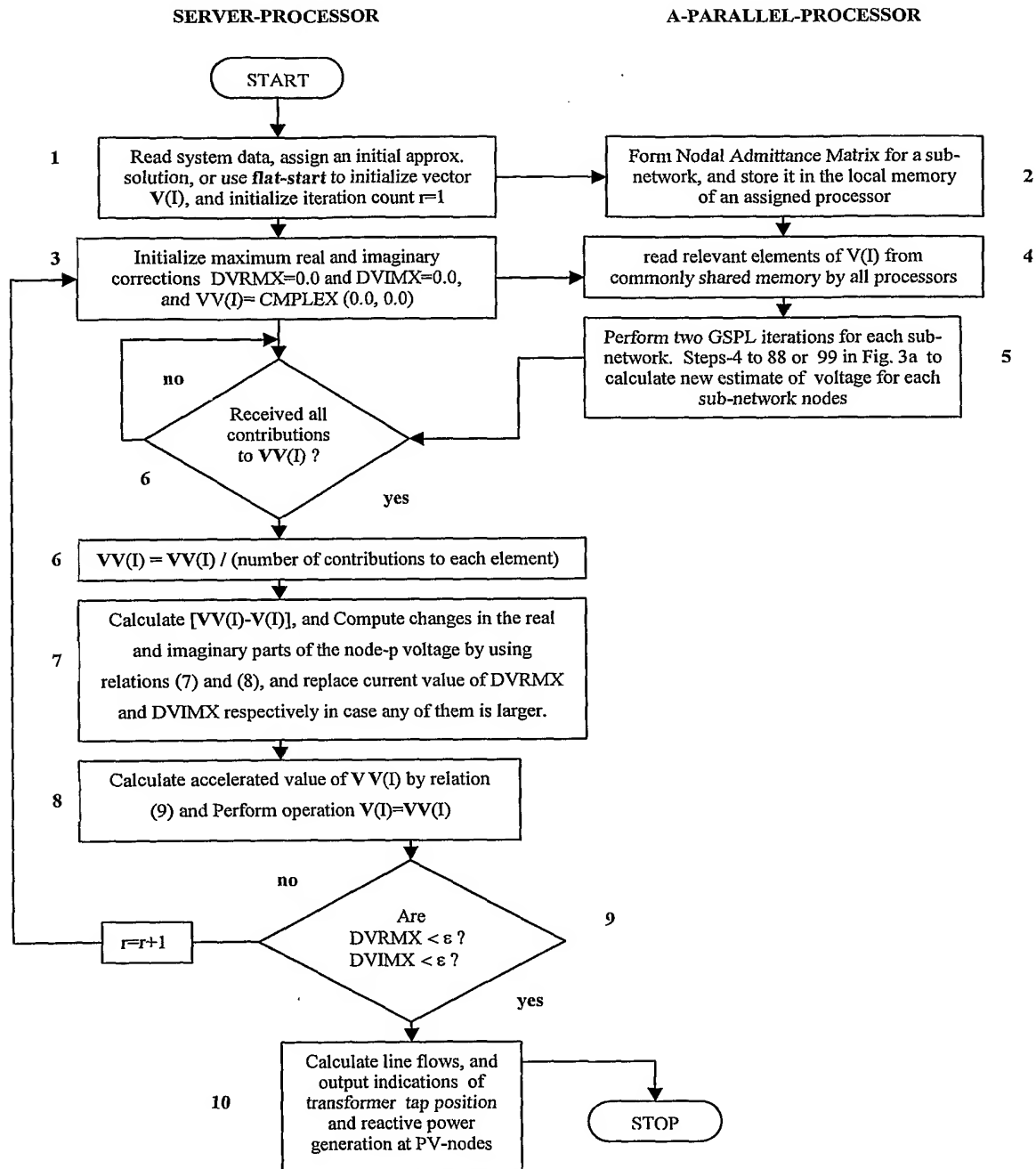
**Fig. 2c:** Non-redundant Level-1 sub-networks of fig. 2b are regrouped to reduce the number of processors required without increasing the number of nodes in any regrouped sub-network larger than the original largest sub-network of 6-nodes



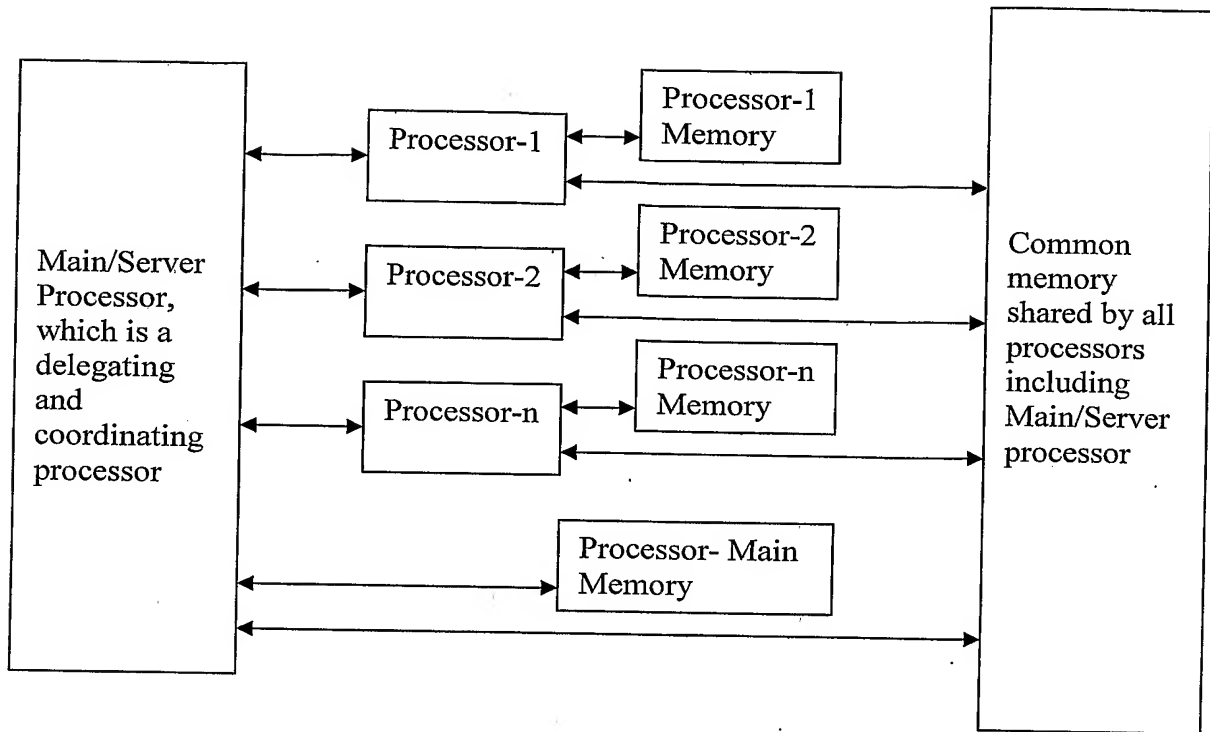
**Fig. 2b:** Level-1 sub-networks around circled nodes for the network of fig. 2a



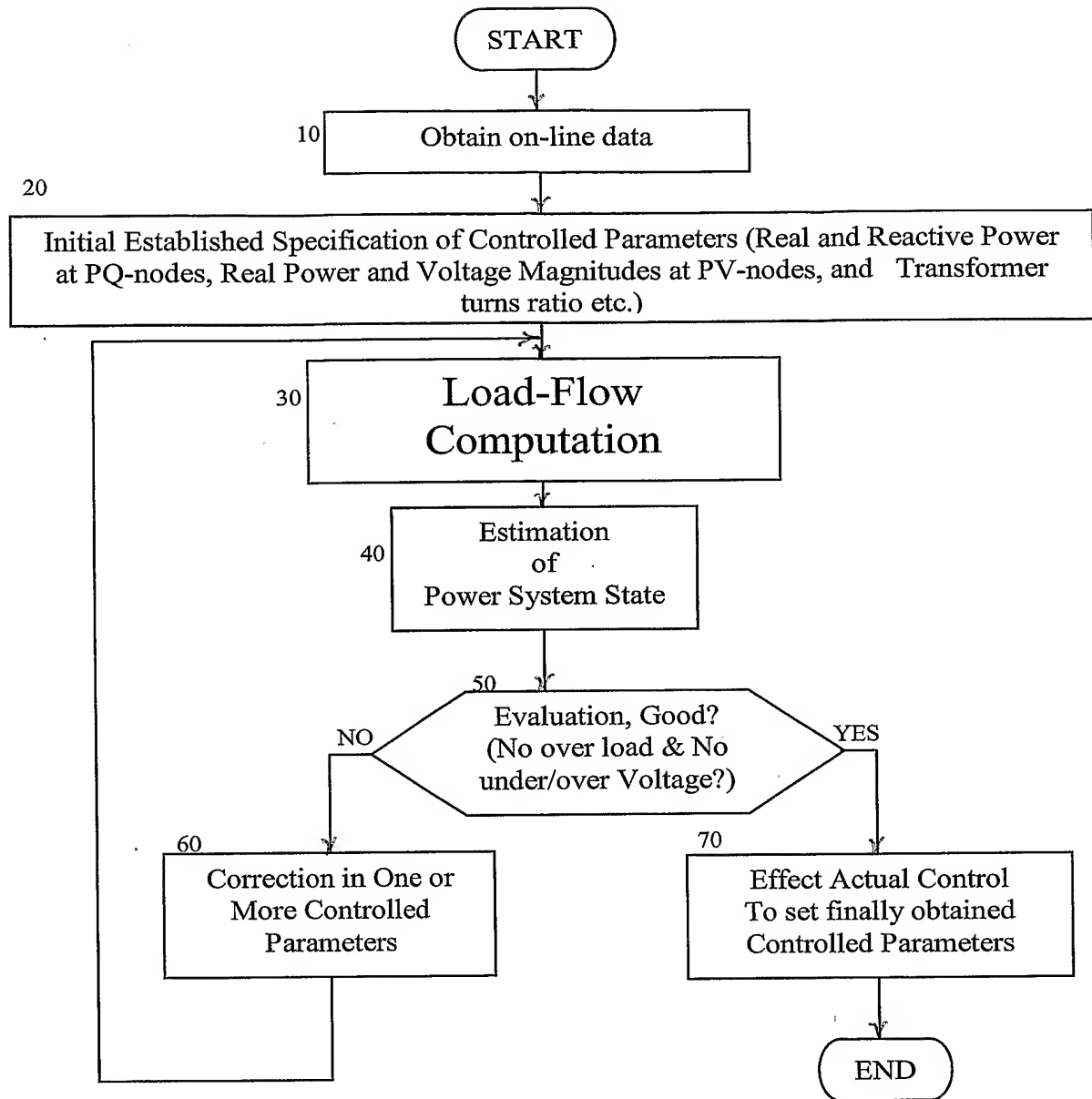
**Fig. 3a: Invention: flow-chart of Gauss-Seidel-Patel Loadflow Algorithm-2a**



**Fig. 3b: Invention: flow-chart of Parallel-Gauss-Seidel-Patel Loadflow Algorithm-2b**

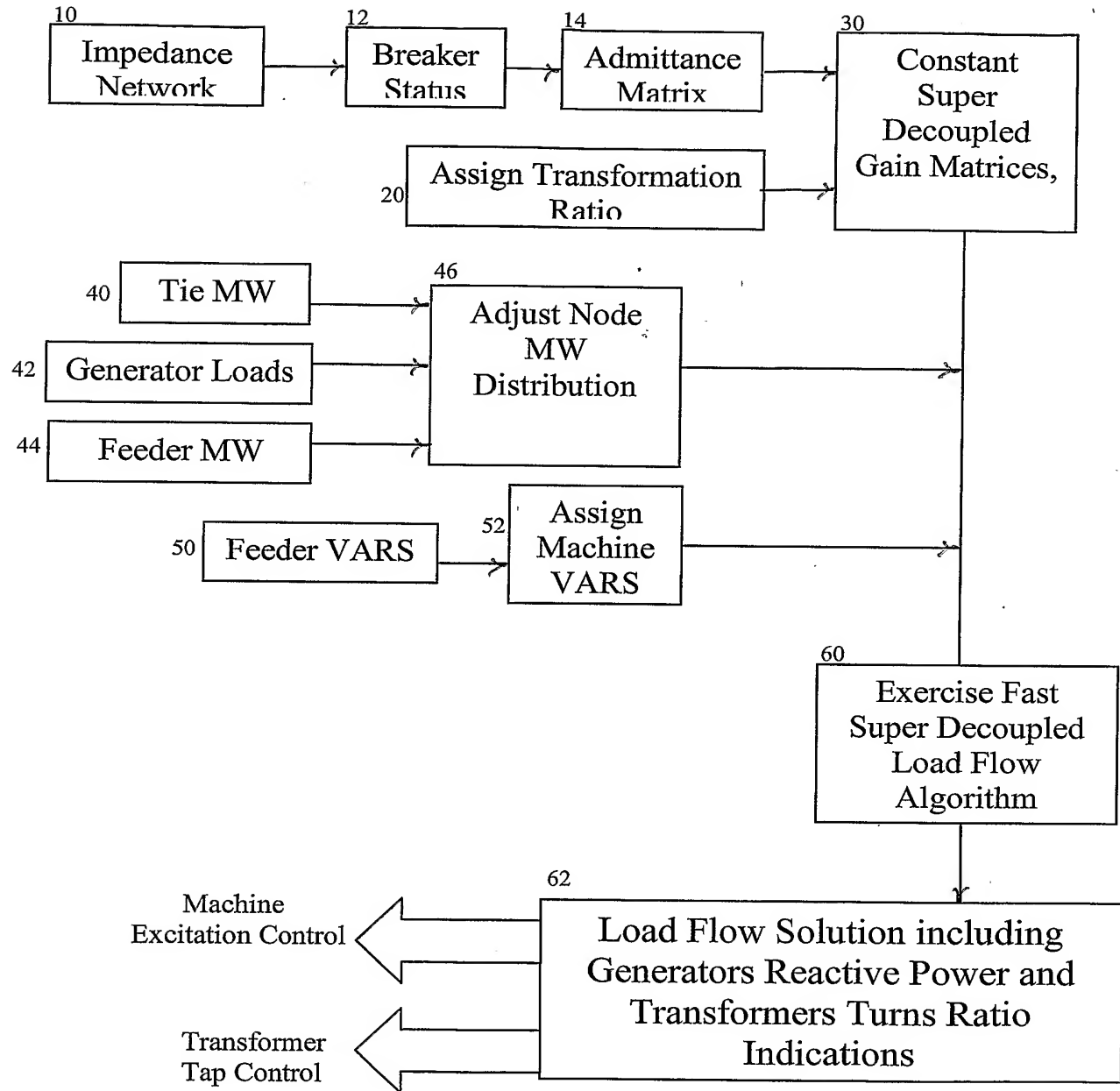


**Fig. 4: Invented Parallel computer Architecture/organization**



**Fig. 5:** Load-Flow Computation in Security Control of Electrical Power System (PRIOR ART)





**Fig. 6:** Load-Flow Computation in Voltage Control of Electrical Power System (PRIOR ART)